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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/803,934	03/19/2004	Masaharu Wada	250759US2S	6736
22850	7590	05/19/2005		EXAMINER
OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314			LAXTON, GARY L	
			ART UNIT	PAPER NUMBER
			2838	

DATE MAILED: 05/19/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)
	10/803,934	WADA, MASAHIRO <i>(PM)</i>
	Examiner	Art Unit
	Gary L. Laxton	2838

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) Responsive to communication(s) filed on 18 February 2005.
- 2a) This action is **FINAL**.                            2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1-21 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 18 February 2005 is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) All    b) Some \* c) None of:
  1. Certified copies of the priority documents have been received.
  2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) Notice of Informal Patent Application (PTO-152)
- 6) Other: \_\_\_\_\_

## DETAILED ACTION

### ***Response to Arguments***

1. Applicant's arguments with respect to claims 1-17 have been considered but are moot in view of the new ground(s) of rejection.
2. Applicant's arguments filed 2/18/05 with respect to claim 18 have been fully considered but they are not persuasive. Figure 20 of Japanese Pat. No. 11-45125 (the "JP '125" patent) is connected as claimed; therefore, it must function the same as the applicant's. Furthermore, the applicant mentions the current mirror not being linked to the Diodes (D1, D2). The examiner notes that the applicant's diodes are not linked to the current mirror either in the instant invention. Therefore, the argument appears to be irrelevant.

### ***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

- (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 18-20 are rejected under 35 U.S.C. 102(e) as being anticipated by KOKAI (JP – 11-45125).

Kokai discloses claims 18-20; including the PN junctions (D1, D2); current sources (P1-P3), resistors (R1-R3), differential amp (DA1), bias circuit (figure 12) supply voltages (VDD, VSS), current mirror (N20, N21: figure 20).

### ***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1-9, 11-17 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over KOKAI (JP – 11-45125).

Kokai discloses claims 1-9 and 11-17; including the PN junctions (D1, D2); current sources (P1-P3), resistors (R1-R3), differential amp (DA1), bias circuit (figure 12) supply voltages (VDD, VSS), current mirror (N20, N21: figure 20); however, Kokai of figure 20 does not disclose the first current supply is supplying a current only to the first PN junction.

Kokai, figure 13, teaches that it is well known in the art to apply a current source only to a PN junction. In figure 13, there is no resistor. The current source is connected only to a diode. This configuration would reduce circuit components thereby reducing manufacturing costs and reducing circuit size.

Therefore, it would have been obvious to having ordinary skill in the art at the invention was made to include a current source supplying current only to a PN junction as taught by Kokai in order to reduce manufacturing costs by eliminating the extra resistor in figure 20.

Kokai discloses the claimed subject matter in regards to claim 18 supra; including the PN junctions (D1, D2); current sources (P1-P3), resistors (R1-R3), differential amp (DA1), bias circuit (figure 12) supply voltages (VDD, VSS), current mirror (N20, N21: figure 20); however, figure 20 of Kokai does not disclose except for the first current supply is supplying a current only to the first PN junction.

Kokai, figure 13, teaches that it is well known in the art to apply a current source only to a PN junction. In figure 13, there is no resistor. The current source is connected only to a diode. This configuration would reduce circuit components thereby reducing manufacturing costs and reducing circuit size.

Therefore, it would have been obvious to having ordinary skill in the art at the invention was made to include a current source supplying current only to a PN junction as taught by Kokai in order to reduce manufacturing costs by eliminating the extra resistor in figure 20.

7. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over KOKAI (JP – 11-45125) in view of Maulik (US 6,133,719).

Kokai discloses the claimed subject matter in regards to claim 9 except for the differential amp having nine transistors connected as claimed.

Maulik teaches of a differential amp having 5<sup>th</sup> through 12<sup>th</sup> transistors (16, -19, 24, 32, 13, 49, 31, 41) for operating the differential amplifier.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have a differential amp having 5<sup>th</sup> through 12<sup>th</sup> transistors connected amongst themselves as claimed in order to operate the differential amplifier.

***Conclusion***

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

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9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gary L. Laxton whose telephone number is (571) 272-2079. The examiner can normally be reached on Monday thru Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Sherry can be reached on (571) 272-2084. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



5/16/05

Gary L. Laxton  
Primary Examiner  
Art Unit 2838